AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A circuit for temperature sensing, comprising:

a comparator circuit that is arranged to provide a trigger signal by comparing a reference signal to a temperature sensor signal;

a power-on-reset generator that is arranged to provide a power-on reset signal;

a gate circuit that is arranged to provide an output signal by gating a gate input signal subject to control by a gate control signal, wherein the gate input signal is based at least in part on the trigger signal, and wherein the gate control signal is based at least in part on the power-on-reset signal; and

a hysteresis-and-output-sensor circuit that is configured to control the reference signal in response to a sensed signal, wherein the sensed signal is based at least in part on the output signal, and wherein the hysteresis-and-output sensor circuit is arranged to disable a hysteresis at power up, wherein the comparison of the reference signal to the temperature signal made by the comparison circuit is a temperature comparison in which a determination is made as to whether a temperature has reached a predetermined level, wherein the predetermined level is modified by a predetermined amount when hysteresis is enabled.

2. (Original) The circuit of Claim 1, wherein the power-on-reset signal is the gate control signal.

3. (Original) The circuit of Claim 1, further comprising:

a timer circuit that is configured to provide a mute signal in response to the power-on-reset signal, wherein the mute signal is the gate control signal.

4. (Original) The circuit of Claim 3, wherein the timer circuit includes a one-shot timer circuit, wherein the one-shot timer circuit is configured to provide the mute signal such that the gate control signal such that the mute signal corresponds to an active logic level when a power supply signal is

applied to the circuit, and for a pre-determined period of time thereafter; and such that the mute signal corresponds to an inactive level after the pre-determined period of time.

5. (Original) The circuit of Claim 1, wherein the sensed signal is the output signal, and wherein the gate input signal is the trigger signal.

6. (Original) The circuit of Claim 1, wherein the gate circuit is configured to provide the output signal such that a logic level of the output signal corresponds to a logic level of the trigger signal if the gate control signal corresponds to an inactive level, and the logical level of the output signal corresponds to a first logic level if the gate control signal corresponds to an active level.

7. (Original) The circuit of Claim 1, wherein the gate circuit includes an AND gate.

8. (Original) The circuit of Claim 1, wherein the comparator circuit is configured to provide the trigger signal such that the trigger signal corresponds to a first logic level if a voltage associated with the reference signal is greater than a voltage associated with the temperature sensor signal, and the trigger corresponds to a second logic level if the voltage associated with the reference signal is less than the temperature sensor signal.

9. (Original) The circuit of Claim 1, further comprising:

a reference circuit that is configured to provide the reference signal in conjunction with the hysteresis-and-output-sensor circuit,

wherein the hysteresis-and-output-sensor circuit is arranged to modify the reference signal if the hysteresis-and-output-sensor circuit is enabled, and wherein the hysteresis-and-output-sensor circuit is disabled if the output signal corresponds to a first logic level.

10. (Original) The circuit of Claim 9, wherein the reference circuit includes:

a resistor that is coupled to the hysteresis-and-output-sensor circuit and the comparator circuit; and

a current source circuit that is configured to provide a current to the resistor.

11. (Original) The circuit of Claim 10, wherein the hysteresis-and-output-sensor circuit is configured to provide a hysteresis current to the resistor if the output signal corresponds to the second logic level.

12. (Original) The circuit of Claim 10, wherein a resistance that is associated with the resistor is adjustable.

13. (Currently Amended) A method for temperature sensing, comprising:

employing a circuit to activate hysteresis if a temperature-sensing condition has occurred; and

ensuring that the hysteresis is automatically inactive when the circuit is powering up, wherein the temperature-sensing condition is a temperature comparison in which a determination is made as to whether a temperature has reached a predetermined level, wherein the predetermined level is modified by a predetermined amount when hysteresis is enabled.

14. (Original) The method of Claim 13, further comprising providing a reference signal, wherein activating the hysteresis includes modifying the reference signal, and wherein the hysteresis is active if the output signal corresponds to a first logic level.

15. (Original) The method of Claim 13, wherein ensuring includes

providing an output signal in response to a gate input signal and a gate control signal, wherein the gate control signal is derived form a power-on-reset signal, a logic level of the output signal corresponds to a logic level of the gate input signal if the gate control signal corresponds to an inactive level, and the logical level of the output signal corresponds to a first logic level if the gate control signal corresponds to an active level.

16. (Original) The method of Claim 15, furthering comprising:

comparing a temperature sensor signal to a reference signal; and

providing a trigger signal in response to the comparison, wherein the gate input signal is based at least in part on the trigger signal.

17. (Original) The method of Claim 15, wherein providing the output signal includes performing a logical AND function on the gate input signal and the gate control signal.

18. (Original) The method of Claim 15, further comprising:

applying a power supply signal; and

providing the gate control signal in response to the power-on-reset signal, wherein providing the gate control signal includes:

providing the gate control signal such that the gate control signal corresponds to an active logic level when the power supply signal is initially applied, and for a pre-determined period of time thereafter; and

providing the gate control signal such that the gate control signal corresponds to an inactive level after the pre-determined period of time.

19. (Original) The method of Claim 15, further comprising:

providing a first current; and

converting a reference current into the reference signal, wherein activating the hysteresis includes:

providing a hysteresis current if the output signal corresponds to a first logic level;

providing substantially no current if the output signal corresponds to a second logic level; and

providing the reference current by combining the first current and the hysteresis current.

20. (Currently Amended) A circuit for temperature sensing, comprising:

means for activating hysteresis if a temperature-sensing condition has occurred; and

means for ensuring that the hysteresis is automatically inactive when the means for activating hysteresis is powering up, wherein the temperature-sensing condition is a temperature comparison in which a determination is made as to whether a temperature has reached a predetermined level, wherein the predetermined level is modified by a predetermined amount when hysteresis is enabled.

21. (Previously presented) The circuit of Claim 22, wherein the circuit for temperature sensing is arranged such that the comparator circuit trips when the temperature sensed by the temperature sensor signal reaches a pre-determined level, and wherein the pre-determined level is modified by a pre-determined amount when hysteresis is enabled.

22. (Currently Amended) A circuit for temperature sensing, comprising:

a comparator circuit that is arranged to provide a trigger signal by comparing a reference signal to a temperature sensor signal;

a gate circuit that is arranged to provide an output signal by gating a gate input signal subject to control by a gate control signal, wherein the gate input signal is based at least in part on the trigger signal, and wherein the gate control signal is based at least in part on a power-on-reset signal;

a hysteresis-and-output-sensor circuit that is configured to control the reference signal in response to a sensed signal, wherein the sensed signal is based at least in part on the output signal; and

a temperature sensor signal generation circuit, wherein the temperature sensor signal generation circuit is arranged to provide the temperature sensor signal such that the temperature sensor signal is indicative of a temperature, wherein the comparison of the reference signal to the temperature signal made by the comparator circuit is a temperature comparison in which a determination is made as to whether a temperature has reached a predetermined level, wherein the predetermined level is modified by a predetermined amount when hysteresis is enabled.

23. (Previously presented) The circuit of Claim 22, wherein the temperature sensor signal is proportional to a temperature.

24. (Previously presented) The circuit of Claim 1, wherein the comparator circuit compares the temperature sensor signal to the reference signal in order to perform a temperature comparison.

25. (Previously presented) The circuit of Claim 24, wherein the hysteresis-and-output-sensor circuit is arranged to provide the hysteresis in a range of about 2°C to about 10°C of hysteresis for the temperature comparison when the hysteresis is enabled.

26. (Previously presented) The method of Claim 16, further comprising:
activating at least one of a fan or a heater when the output signal is asserted.

27. (Previously presented) The method of Claim 13, wherein
ensuring that the hysteresis is automatically inactive when the circuit if powering up is accomplished by disabling the hysteresis until the power up is complete.

28. (Previously presented) The method of Claim 16, further comprising:
activating at least one of a fan or a heater when the output signal is asserted, such that the at least one of the fan or heater changes from inactive to active when the output signal is asserted.

29. (Previously presented) The method of Claim 16, further comprising:
activating a fan when the output signal is asserted.

30. (Previously presented) The method of Claim 16, further comprising:
activating a heater when the output signal is asserted.

31. (Previously presented) The method of Claim 16, wherein the temperature sensor signal is indicative of a temperature.

32. (Previously presented) The method of Claim 16, wherein the temperature sensor signal is proportional to temperature.

33. (Currently Amended) The method of Claim 16[[13]], wherein the temperature-sensing condition is a temperature comparison in which a determination is made as to whether a temperature has reached a predetermined level, wherein the predetermined level is modified by a predetermined amount when hysteresis is enabled.

34. (Currently Amended) The method of Claim 13[[33]], wherein the hysteresis is hysteresis in a range of about 2°C to about 10°C of hysteresis for the temperature comparison when the hysteresis is enabled.